



2010 Annual Amendment Application No. 2010-08
Electric Vehicle Infrastructure

STAFF REPORT

Application #:	2010-08
Applicant:	City of Tacoma, Community and Economic Development Dept.
Contact:	Diane Wiatr, Long-Range Planning Division
Type of Amendment:	Comprehensive Plan Text Change & Regulatory Code Text Change
Current Land Use Intensity:	N/A
Current Area Zoning:	Applies to commercial and industrial zones
Size of Area:	Citywide
Location:	Citywide
Neighborhood Council area:	Citywide
Proposed Amendment:	Amend the Regulatory Code by adding development regulations for electric vehicle charging stations and amend the Comprehensive Plan to add language to support electric vehicles and their charging infrastructure

General Description of the Proposed Amendment:

This amendment to the Regulatory Code and Comprehensive Plan is required by a recent amendment to the Growth Management Act. The Washington State legislature passed the Electric Vehicle (EV) SSHB 1481 in July 2009. This law mandates that affected jurisdictions plan for EV infrastructure and modify zoning regulations to allow the infrastructure to be built. SSHB 1481 “finds the development of electric vehicle infrastructure to be a critical step in creating jobs, fostering economic growth, reducing greenhouse gas emissions, reducing our reliance on foreign fuels and reducing the pollution of Puget Sound attributable to the operation of petroleum-based vehicles on streets and highways.”

Electric vehicle infrastructure consists of facilities where EV motorists can plug a vehicle into an electrical source to recharge a depleted EV battery or exchange one for a battery that is fully charged and ready to go. There are two different levels of charging stations, with the most common at 110-220 volts, and rapid charging stations that would likely operate at 440 volts. There will also be battery swap-out stations where vehicles would drive in with a depleted battery and have it exchanged for a fully charged battery. While charging stations that utilize standard voltage (110-220) could be sited in publicly owned parking lots, park and rides, grocery stores, etc., the rapid charging stations and battery swap-out stations are similar to gas stations and “quickie-lube” facilities.

Currently, the City of Tacoma does not specifically address electric vehicle charging or battery exchange facilities in its regulatory code. Nor is there mention of support for electric vehicles or their charging in Tacoma’s Comprehensive Plan.

The EV Infrastructure legislation states that affected jurisdictions will be supported in this endeavor by the Puget Sound Regional Council (PSRC), the Department of Ecology, and the Department of Commerce (formerly CTED) in order to create a consistent regulatory framework throughout the region and ultimately throughout the entire west coast. The PSRC has been tasked with creating a model ordinance in collaboration with affected jurisdictions and will begin the process in February and end some time in the fall. City of Tacoma staff will be involved in the process of drafting a model ordinance. However, the EV legislation also requires affected jurisdictions to amend their regulations by July 1, 2010. The proposed amendment will satisfy this requirement but it is acknowledged that once the model ordinance is developed, Tacoma may need to revise the EV regulations for consistency.

Additional Information:

The EV Infrastructure amendment is relevant to a great deal of regional planning that is currently being discussed for the successful realization of electric vehicle usage. The City of Tacoma is positioning itself to be involved in pilot projects that involve federal funding to the region. There are four major initiatives that have been identified as immediate opportunities in which Tacoma – more specifically probably the Dome District area – can be a key component of a regional EV network. Those opportunities are:

- The “EV Project” is a demonstration project lead by Nissan, eTec, and the Idaho National Labs. It is funded by a \$100 million grant from the US Dept of Energy. The project will install car-charging stations – beginning this fall – in areas surrounding five major U.S. cities: Nashville, Phoenix, San Diego and – most important to Tacoma – Seattle and Portland. The goal for Nissan is to launch the largest deployment of all-electric vehicles in history. Goals for Washington and Oregon are to build complete charging networks to support EV in Seattle and Portland, as well as to begin to build a complete network between the two cities in order to mark the Pacific Northwest as the national leader in EV mobility.
- The “green highway” is a pledge – issued by Governor Gregoire through executive order last May – to work with other west coast Governors to seek federal funding for installation of EV charging infrastructure along the west coast’s interstate highways. The goal of the Seattle-Portland corridor in the EV Project positions our region very well to succeed in leading the green highway effort.
- The U.S.-China Electric Vehicle Initiative was announced by President Obama and President Hu Jintao in November as a result of President Obama’s trip to China. A key part of the initiative will include linking more than a dozen cities in both countries with electric vehicle demonstration programs to share data and help facilitate large-scale introduction of EV technology. Again, Tacoma’s participation in the national EV Project positions it strongly for participation in this international demonstration.
- The recently federally funded Sustainable Communities Initiative will make \$150 million available in 2010 – and we anticipate over \$3.75 billion over the next three years – for metropolitan regions to coordinate transportation and housing investments that result in sustainable development patterns, reduced greenhouse gas emissions, and more transit-accessible housing choices. The Puget Sound region is expected to be competitive for \$4 million in the first round of funding to be made available this spring. The Dome District has been identified by partners across the four county region of the central Puget Sound as an ideal hub for investment through this initiative that is sponsored by the EPA, USDOT, and HUD.

Identifying which specific projects in the Dome District (or other areas of the city) would be forwarded in order to participate in these four opportunities is currently the task at hand. It goes without saying that it is necessary that our Comprehensive Plan and regulatory code include the policy and language necessary to support development of such projects.

Public Outreach:

There has not yet been public outreach on this amendment. The public outreach for EV Infrastructure amendment will primarily be as part of the public review of the annual amendments which includes extensive notice and public hearings by the Planning Commission and City Council. The City Council's Environment and Public Works Committee also will be discussing the amendment at their public meetings. A Community Information Session for the 2010 Annual Amendments will be conducted on February 24, 2010. This will be an opportunity for citizens to learn more about the proposed amendments and asks questions of staff.

Applicable Provisions of the Growth Management Act (and other state laws):

The Electric Vehicle Infrastructure amendments are required for the City of Tacoma to comply with the GMA. The applicable portions of the Revised Code of Washington are as follows.

RCW 36.70A.695 Development regulations — Jurisdictions specified — Electric vehicle infrastructure.

(1) By July 1, 2010, the development regulations of any jurisdiction:

(a) Adjacent to Interstate 5, Interstate 90, Interstate 405, or state route number 520, with a population over twenty thousand, and located in a county with a population over one million five hundred thousand; or

(b) Adjacent to Interstate 5 and located in a county with a population greater than six hundred thousand; or

(c) Adjacent to Interstate 5 and located in a county with a state capitol within its borders;

planning under this chapter must allow electric vehicle infrastructure as a use in all areas except those zoned for residential or resource use or critical areas. A jurisdiction may adopt and apply other development regulations that do not have the effect of precluding the siting of electric vehicle infrastructure in areas where that use is allowed.

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(4) Cities are authorized to adopt incentive programs to encourage the retrofitting of existing structures with the electrical outlets capable of charging electric vehicles. Incentives may include bonus height, site coverage, floor area ratio, and transferable development rights for use in urban growth areas.

(5) The definitions in this subsection apply throughout this section unless the context clearly requires otherwise.

(a) "Battery charging station" means an electrical component assembly or cluster of component

assemblies designed specifically to charge batteries within electric vehicles, which meet or exceed any standards, codes, and regulations set forth by chapter [19.28](#) RCW and consistent with rules adopted under RCW [19.27.540](#).

(b) "Battery exchange station" means a fully automated facility that will enable an electric vehicle with a swappable battery to enter a drive lane and exchange the depleted battery with a fully charged battery through a fully automated process, which meets or exceeds any standards, codes, and regulations set forth by chapter [19.28](#) RCW and consistent with rules adopted under RCW [19.27.540](#).

(c) "Electric vehicle infrastructure" means structures, machinery, and equipment necessary and integral to support an electric vehicle, including battery charging stations, rapid charging stations, and battery exchange stations.

(d) "Rapid charging station" means an industrial grade electrical outlet that allows for faster recharging of electric vehicle batteries through higher power levels, which meets or exceeds any standards, codes, and regulations set forth by chapter [19.28](#) RCW and consistent with rules adopted under RCW [19.27.540](#).

Applicable Provisions of the Comprehensive Plan:

Electric vehicle infrastructure is not specifically addressed in the City's Comprehensive Plan policies or development regulations. Existing policies in the Transportation and Environmental Policy elements recognize the environmental impacts associated with vehicle emissions and support the use of alternative fuel vehicles as a means to reduce or eliminate these impacts. The proposed amendment also is consistent with Tacoma's Climate Action Plan goals regarding reducing carbon emissions from transportation. Specifically, the Climate Action Plan calls for the following actions:

- Advocating at the state and national levels for policies and programs that provide incentives for Tacoma residents to use more fuel-efficient or alternative-fuel vehicles.
- Developing a map of renewable fuel locations and electric plug-in stations to make it easier for drivers to find stations and to show that adequate infrastructure exists to make refilling convenient.

The proposed amendment will add a new policy to Tacoma's Comprehensive Plan Transportation Element to support the use and recharge of electric vehicles that is not inconsistent with other policies:

T-ES-7: Electric Vehicles

Encourage and promote the use of electric vehicles; provide for a broad range of opportunities for vehicle recharge.

Amendment Criteria:

Applications for amendments to the Comprehensive Plan and Land Use Regulatory Code are subject to review based on the adoption and amendment procedures and the review criteria contained in TMC 13.02.045.G. Proposed amendments are required to be consistent with or achieve consistency with the Comprehensive Plan and meet at least one of the eleven review criteria to be considered by the Planning Commission. The following section provides a review of each of these criteria with respect to the proposal. Each of the criteria is provided, followed by staff analysis of the criterion as it relates to this proposal.

- 1. There exists an obvious technical error in the pertinent Comprehensive Plan or regulatory code provisions.**

Staff Analysis: Not applicable

- 2. Circumstances related to the proposed amendment have significantly changed, or a lack of change in circumstances has occurred since the area or issue was last considered by the Planning Commission.**

Staff Analysis: There is a new requirement by 2009 Washington State law as noted in the General Description above.

- 3. The needs of the City have changed, which support an amendment.**

Staff Analysis: The City is now obligated to comply with the revised GMA which mandates this amendment be adopted by the City prior to July 1, 2010.

- 4. The amendment is compatible with existing or planned land uses and the surrounding development pattern.**

Staff Analysis: The regulatory code amendment is compatible with the existing codes for similar automobile movement support such as gas stations and service stations.

- 5. Growth and development, as envisioned in the Plan, is occurring faster, slower, or is failing to materialize.**

Staff Analysis: Not applicable

- 6. The capacity to provide adequate services is diminished or increased.**

Staff Analysis: Not applicable

- 7. Plan objectives are not being met as specified, and/or the assumptions upon which the plan is based are found to be invalid.**

Staff Analysis: Not applicable

- 8. Transportation and and/or other capital improvements are not being made as expected.**

Staff Analysis: Not applicable

- 9. For proposed amendments to land use intensity or zoning classification, substantial similarities of conditions and characteristics can be demonstrated on abutting properties that warrant a change in land use intensity or zoning classification.**

Staff Analysis: Not applicable

10. A question of consistency exists between the Comprehensive Plan and its elements and RCW 36.70A, the County-wide Planning Policies for Pierce County, Multi-County Planning Policies, or development regulations.

Staff Analysis: Not applicable

Economic Impact Assessment:

Tacoma Public Utilities (TPU) may bear some economic impact from these code changes because TPU is responsible for the distribution and sale of electricity in Tacoma. TPU staff are aware of the state legislation and are planning accordingly for the development and implementation of electric vehicle charging technology. There is not yet a dollar value associated with the impacts of these code changes and some of the technology associated with high voltage charges and swap-out stations is brand new and has never been installed or used by the public. There is also considerable federal funding available to the region to begin installation of EV infrastructure and the City of Tacoma and TPU are working to secure these funds.

Staff Recommendation:

Staff recommends the draft amendments should be forwarded for public review and comment and a preliminary staff recommendation is to approve the changes prior to July 1, 2010 as mandated by Washington State law.

Exhibits:

- A Draft Amendments to the Transportation Element of the Comprehensive Plan and Chapter 13.06 of the Land Use Regulatory Code (the Zoning Code)



**2010 Annual Amendment Application No. 2010-08
Electric Vehicle Infrastructure Regulations**

DRAFT COMPREHENSIVE PLAN AND ZONING CODE AMENDMENTS
January 25, 2010

*Note – These amendments show all of the changes to the *existing* Comprehensive Plan and land use regulations. The sections included are only those portions of the plan and code that are associated with these amendments. New text is underlined and text that is deleted is shown in ~~strike~~through.

COMPREHENSIVE PLAN AMENDMENT
Transportation Element

Section I – Goal and Policies

Environmental Stewardship

Policy Intent

The City of Tacoma is required to comply with the Washington Clean Air Act, the Commute Trip Reduction Law, the National Environmental Policy Act, and the State Environmental Policy Act. Policies that exist in other parts of the transportation element that reduce car use, support transit, and encourage walking and bicycling are key to reducing transportation-related environmental impacts. It is the intent of the following policies that planning and implementation of transportation projects will not greatly impact the quality of the environment or worsen existing conditions, and will contribute to the City's overall efforts in addressing issues associated with the global warming and climate change.

Policies

T-ES-1 Minimum Environmental Disruption

Ensure environmentally sensitive design and management of the transportation system to minimize the disruption of natural and desirable manmade elements of our environment.

T-ES-2 Noise and Air Pollution

Encourage the reduction of noise and air pollution from various modes of transportation; promote the use of alternative fuels for vehicles; and ensure the City of Tacoma meets ambient air quality standards.

T-ES-3 Congestion Management

Encourage the use of alternative modes, and thereby slow the increase in the use of single-occupant vehicles and the increase of environmental degradation associated with their use.

T-ES-4 Stormwater Management

Employ Best Management Practices (BMPs) for stormwater management, Low Impact Development (LID) measures, and effective street cleaning to alleviate a major source of groundwater pollution due to roadway uses.

T-ES-5 Urban Design

Give maximum consideration to aesthetics and beautification while insuring compatibility with safety standards in the design and location of both local and state owned transportation facilities to ensure a positive contribution to the appearance and form of the city.

T-ES-6 Public Awareness

Initiate and support public awareness campaigns that focus attention on the societal and environmental impacts and costs of travel choices, and that increase the public's awareness and acceptance of the range of travel choices available. Partner with Pierce Transit to organize a marketing campaign that improves the "image" of bus transit and encourages ridership.

T-ES-7: Electric Vehicles

Encourage and promote the use of electric vehicles; provide for a broad range of opportunities for vehicle recharge.

ZONING CODE AMENDMENTS
TMC CHAPTER 13.06

13.06.700 Definitions and illustrations.

For the purposes of this chapter, certain words and terms are defined as follows: words used in the present tense include the future, words in the singular number include the plural, and words in the plural number include the singular; the word "building" includes the word "structure"; the word "shall" is mandatory and not directory. For words that are not defined in this chapter, or that do not incorporate a definition by reference, refer to a Webster's Dictionary published within the last ten years.

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~~Gas-Fueling~~ station. Establishments engaged in the retail sale of gas or diesel fuel, lubricants, parts, and accessories, and/or rapid charging of electric vehicles. This classification includes customary incidental activities maintenance and repair of automobiles when performed in conjunction with the sale of ~~gas or diesel~~ fuel, and such as automobile maintenance and repair, vehicle washing, and electric vehicle battery swap-out, but excludes body and fender work or repair of heavy trucks or vehicles.

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Vehicle service and repair. Repair and/or service of automobiles, trucks, motorcycles, motor homes, recreational vehicles, or boats, including the sale, installation, and servicing of related equipment and parts. This classification includes car washing facilities, auto repair shops, electric vehicle rapid charging and/or battery swap-out facilities, body and fender shops, car painting, wheel and brake shops, and tire sales and installation, but excludes vehicle dismantling or salvage and tire retreading or recapping.